



APPLICATION OF EMOTIVE COGNITION STRATEGIES IN TEACHING: A PILOT STUDY

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ABSTRACT

The purpose of a pilot study was to examine the application of emotive cognition strategies in teaching. The sample of the study was hundred second year B.Ed. student-teachers in Puducherry. Among them, 25 were male and 75 were female student-teachers. The data were collected through survey with the Application of Emotive Cognition Strategies in Teaching Scale (AECST). The collected data was analysed through statistical techniques of descriptive analysis, independent 't' test and ANOVA. This study found that second year B.Ed. student-teachers have moderate level in their application of emotive cognition strategies in teaching. The 't' test revealed that there is no difference between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. It also revealed that there is no difference between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. ANOVA results showed that there is no significant difference among second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching with respect to education qualifications and native languages. This pilot study revealed that the second year B.Ed. student-teachers are identical and they have same behaviour in application of emotive cognition strategies in teaching.

KEYWORDS: Application, Emotive Cognition, Strategies, Student-Teachers, Teaching, Learning.

INTRODUCTION:

Emotions modulate information processing in the brain regions that mediates the process of cognitive functions. An exploration of teacher emotion represents a promising new direction in research on teaching. Ultimately, the goal of research in this area is the improvement of instruction and student learning. Michalinos Zembylas (2005) expressed about studies on teacher emotion emphasize how emotion is inseparably linked to teachers' lives. In light of the general assumption of teacher thinking research that teachers' thoughts determine their behavior, studies on teacher emotion have begun to illustrate very clearly how emotions play a very important role in teaching and learning. Cognition and emotions are interrelated. Cognition can be basis for the emotion and emotional process can have cognitive outcome. Both are important for proper information processing and normal behaviour of an individual. Emotive cognitive strategies application in teaching enhance the teaching and meaningful learning. In this pilot study the researcher aimed to examine the application of emotive cognition strategies among second year B.Ed. student-teachers.

Application of Emotive Cognition Strategies in Teaching:

The human mental life is intervened with the two broad categories of thought and feelings. It triggers the eloquent behaviour to individual. There is a relationship between emotion and cognition. Emotion influence the cognitive functions and same way cognition recognise the perceptive feelings. Emotions play a significant role in the development and application of logic, intuition and ideas (Rawson 2000; Rogers 1994). Emotions impact learners' intellectual processes and cognitive efficiency (Rawson 2000; Shepherd 2004). According to William Reddy (1997, 2001) "*Emotives refer to emotional gestures and utterances, and to their capacity to alter the states of the speakers from whom they derive*". Cognition is the mental process or action of acquiring knowledge and understanding thought, experience and the sense. Emotive cognition refers to strong emotional feelings plays an important role in the formation of cognition and its various functions. During the application of emotive cognitive strategies in teaching, the teacher understand his own emotions and student emotions, at the same time with emotions the teacher triggers the cognitive functions of perception, attention, memory problem solving ability, decision making and social cognition among learners. The teacher integrate the affective and cognitive domains for meaningful teaching and learning.

RESEARCH REVIEWS:

The following research reviews related to emotion and cognition are briefly explained. The research studies shows that how teacher cognition functions while teaching and correlation between teacher positive emotions and students learning.

Cimen, S.S. and Daloglu, A. (2019) aimed to study cognitions of pre-service English language teachers in relation to dealing with most commonly experienced in-class challenges in foreign language teaching and the influences that shape their cognitions. The results of the study revealed that (1) pre-service teachers generated various strategies in their pre- and post-practicum cognitions; (2) there were traces of change in cognitions due to practicum; (3) courses in teacher education program, pre-service teachers' own learning experiences, and practicum experiences emerged as influences that shape their cognitions. Staus, N. L. and

Falk, J. H. (2017) examined the role of emotion in the context of an informal science learning experience by utilizing a path model to investigate the relationships among emotional arousal, valence, attention, environmental values and learning outcomes. They found that higher emotional arousal, less pleasant feelings about the content, and stronger environmental values led to greater short-term learning outcomes. Kordts-Freudinger, R. (2017) investigated relations between higher education teachers' approaches to teaching and their emotions during teaching, as well as their emotion regulation strategies. In this study the correlation analyses revealed positive correlations between positive emotions, emotion reappraisal and the student-oriented approach. Martinez-Sierra, G. and Garcia Gonzalez, M. (2016) aim to identify emotional experiences of undergraduate mathematics students in Linear Algebra courses. The result showed that the participants' emotional experiences in Linear Algebra courses are: satisfaction and disappointment emotions, fear emotions, distress emotions and self-reproach emotions.

SIGNIFICANT OF THE STUDY

Teaching is an art to inculcate the knowledge, skill and behaviour modification among learners. It requires varies tactics to enhance meaningful teaching and learning. The application of emotive cognition strategies in teaching develops the strong inter-relationship between teacher and learner. Emotions have a profound influence on learners' memory and learning. Nowadays there is an awareness and increasing usage of terms like "emotional intelligence". Emotions play an important role in one's successful co-operation on every cognitive functions. The cognitive processes are sensitized, focussed, invigorated, directed, broadened, and sharpened by the emotions. The application of emotive cognition strategies in the classroom teaching and learning trigger the learners feelings internally and externally towards the various mental functions. Teachers also agree that students participate in class and learn best when they feel good about themselves and their lives. Emotions act as filters to form learners' desires, furnish learners capacities, and to a large extent rule their immediate thoughts. Many research conducted separately on emotional or cognitive aspects. Few research conducted in combination of affective and cognitive domains. In this study the affective, cognitive domains are integrated and investigated. Teacher knowledge on affective and cognitive domains build his ability in proper application of emotive cognition strategies in his teaching. This pilot study analyse the level and difference in the application of emotive cognition strategies in teaching.

Research Questions:

1. How does emotion function in cognitive processing?
2. Do second year B.Ed. student-teachers have emotive cognition behaviour?
3. Do second year B.Ed. student-teachers have the same emotive cognition strategies in teaching?
4. How should a B.Ed. student-teacher use emotive cognition strategies in teaching and learning?

OBJECTIVES OF THE STUDY:

1. To find out the level in application of emotive cognition strategies in teach-

ing among second year B.Ed. student teachers

- To find out the level in application of emotive cognition strategies in teaching among second year B.Ed. student teachers with respect to gender
- To find out the level in application of emotive cognition strategies in teaching among second year B.Ed. student teachers with respect to location they come from
- To find out the difference between boys and girls second year B.Ed. student-teachers application of emotive cognition strategies in teaching
- To find out the difference between urban and rural second year B.Ed. student-teachers application of emotive cognition strategies in teaching
- To find out the difference among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts second educational qualifications of year B.Ed. student-teachers application of emotive cognition strategies in teaching
- To find out the difference among Tamil, English and other Indian native languages of second year B.Ed. student-teachers application of emotive cognition strategies in teaching

HYPOTHESES OF THE STUDY:

- There will be no significant difference between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.
- There will be no significant difference between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.
- There will be no significant difference among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts educational qualifications of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.
- There will be no significant difference among Tamil, English and other Indian native languages of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.

METHOD AND MATERIALS:

The investigator in this pilot study adapted the survey method to find out the level and difference in application of emotive cognition strategies in teaching among second year B.Ed. student-teachers.

Sample:

For a pilot study two teacher education colleges were selected in Puducherry. Second year B.Ed. student-teachers were randomly selected from each education college. Totally the sample consisted 100 second year B.Ed. student-teachers. Among them, 25 were male and 75 were female student-teachers.

Tool used in the study:

Application of Emotive Cognition Strategies in Teaching Scale were used in the study. It is constructed by Dr. A. Ananda Kumar. The tool consists of 50 items. Each item measures the application of emotive cognition strategies in teaching. It is in the form of a Likert type scale with five responses. The respondents were instructed to choose one of the following options.

- Strongly Disagree, 2. Disagree, 3. Undecided, 4. Agree, 5. Strongly Agree

The scores allotted were 5 for Strongly Agree, 4 for Agree, 3 for Undecided, 2 for Disagree and 1 for Strongly Disagree. This tool is full of positive statements.

Reliability:

The reliability of the tool was established by split-half method. Hundred second year B.Ed. student-teachers from the teacher education colleges in Pondicherry were identified and the developed tool was administered for establishing reliability. The co-efficient of correlation was found out for the two halves of the items in the scale. Therefore the reliability of the tool was found out by using Spearman-Brown prophecy formula and it was found out to be 0.739.

Validity:

The items was constructed in English language and the developed items were given to subject experts and they were requested to give their suggestion for establishing the validity of the scale. The experts verified and analysed all the particulars. They expressed their satisfaction regarding the items preparation based on the objectives, theories, documents and concepts related to the topic what it is supposed to measure.

RESULTS:

The investigator has used statistical techniques of descriptive analysis, inde-

pendent 't' test and ANOVA for data analysis. The analysed data was explained the following tables.

Table 1: Mean and Standard Deviation for Application of Emotive Cognition Strategies in Teaching among Second Year B.Ed. Student-Teachers

(Maximum Score: 100)

Emotive Cognition Strategies in Teaching	N=100		Low	Moderate	High
	Mean	S.D	14	66	20
	83.18	6.39	(14%)	(66%)	(20%)

It is inferred from the above table-1, that the mean and standard deviation for application of emotive cognition strategies in teaching is 83.18 and 6.39 respectively. Their performance in terms of level is found that (14%) as low, (66%) as moderate and (20%) are in high level. Therefore it is stated as is application of emotive cognition strategies in teaching among second year B.Ed. student-teachers is moderate.

Table 2: Mean and Standard Deviation for Application of Emotive Cognition Strategies in Teaching among Boys and Girls Second Year B.Ed. Student-Teachers

(Maximum Score: 100)

Emotive Cognition Strategies in Teaching	Gender	Mean	S.D	Low	Moderate	High
	Boys (N=25)	82.02	5.48	4	16	5
	Girls (N=75)	83.57	6.65	11	53	11
				(16%)	(64%)	(20%)
				(14.67%)	(70.66%)	(14.67%)

It is inferred from the above table-2, that the mean and standard deviation for application of emotive cognition strategies in teaching among boys second year B.Ed. student-teachers is 82.02 and 5.48, as respectively. Their performance in terms of level is found that (16%) as low, (64%) as moderate and (20%) are in high level. Therefore it is stated as is application of emotive cognition strategies in teaching among boys second year B.Ed. student-teachers is moderate.

It is also inferred from the above table-2, that the mean and standard deviation for application of emotive cognition strategies in teaching among girls second year B.Ed. student-teachers is 83.57 and 6.65 respectively. Their performance in terms of level is found that (14.67%) as low, (70.66%) as moderate and (14.67%) are in high level. Therefore it is stated as is application of emotive cognition strategies in teaching among girls second year B.Ed. student-teachers is moderate.

Table 4: Independent sample 't' test between the Mean scores of boys and girls B.Ed. Student-Teachers Application of Emotive Cognition Strategies in Teaching

Emotive Cognition Strategies in Teaching	Boys (N=25)		Girls (N=75)		Calculated 't' value
	Mean	S.D.	Mean	S.D.	
	205.04	13.70	208.93	16.62	
					1.057**

**Not significant at 0.05 level

From table – 4, it is inferred that the 't' value obtained between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching (1.057) is not significant at 0.05 level. So it is revealed that there is no significant mean difference between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. Thus it showed that boys and girls students are identical in their application of emotive cognition strategies in teaching.

Table 5: Independent sample 't' test between the Mean scores of urban and rural B.Ed. Student-Teachers Application of Emotive Cognition Strategies in Teaching

Emotive Cognition Strategies in Teaching	Rural (N=48)		Urban (N=52)		Calculated 't' value
	Mean	S.D.	Mean	S.D.	
	211.04	16.18	205.11	15.36	
					1.878**

**Not significant at 0.05 level

From table – 5, it is inferred that the 't' value obtained between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching (1.878) is not significant at 0.05 level. So it is revealed that there is no significant mean difference between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. Thus it showed that urban and rural students are identical in their application of emotive cognition strategies in teaching.

Table 6: 'F' test among Undergraduate Science, Undergraduate Arts, Postgraduate Science and Postgraduate Arts Educational Qualifications of Second Year B.Ed. Student-Teachers Application of Emotive Cognition Strategies in Teaching

Education Dimension	Source of variation	Sum of squares	Mean square variance	df	Calculated 'F' Value
	Between	1082.589	360.863	3	
	Within	24149.251	251.555	96	1.435**

**Not significant at 0.05 level

From table-6, it is inferred that the 'F' value obtained among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts educational qualifications of second year B.Ed. student-teachers application of emotive cognition strategies in teaching (1.435) is not significant at 0.05 level. So it is revealed that there is no significant difference among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts educational qualifications of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. Thus it showed that educational qualifications of students are same in their application of emotive cognition strategies in teaching.

Table 7: 'F' test among Tamil, English and Other Indian Native Languages of Second Year B.Ed. Student-Teachers Application of Emotive Cognition Strategies in Teaching

Language Dimension	Source of variation	Sum of squares	Mean square variance	df	Calculated 'F' Value
	Between	559.275	279.637	2	
	Within	24672.565	254.356	97	1.099**

**Not significant at 0.05 level

From table-7, it is inferred that the 'F' value obtained among Tamil, English and other Indian native languages of second year B.Ed. student-teachers application of emotive cognition strategies in teaching (1.099) is not significant at 0.05 level. So it is revealed that there is no significant difference among Tamil, English and other Indian native languages of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. Thus it showed that all native language students are same in their application of emotive cognition strategies in teaching.

FINDINGS:

1. It is found that the application of emotive cognition strategies in teaching among second year B.Ed. student-teachers is moderate.
2. It is found that the application of emotive cognition strategies in teaching among boys and girls second year B.Ed. student-teachers is moderate.
3. It is found that the application of emotive cognition strategies in teaching among urban and rural second year B.Ed. student-teachers is moderate.
4. It is found that there is no significant mean difference between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.
5. It is found that there is no significant mean difference between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching.
6. The 'F' value obtained among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts educational qualifications of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching is not significant.
7. The 'F' value obtained among Tamil, English and other Indian native languages of second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching is not significant.

DISCUSSION:

The purpose of the pilot study was to find out the level and difference in application of emotive cognition strategies in teaching among second year B.Ed. student-teachers. The descriptive analysis showed that there is moderate level in application of emotive cognition strategies in teaching. It implies that moderate level of emotive cognition strategies in teaching contributes peaceful teaching and learning environment. The 't' value obtained between boys and girls second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching is 1.057 and it shows there is no difference between boys and girls in their application of emotive cognition strategies in teaching. It is concurred with the research findings of Fong-Luan Kang (2015) who found that there was no significant difference in scores for male and female graduate students in their emotional intelligence and Sharmista (2015) found that no significant difference was observed in emotional intelligence between men and women student teachers.

The 't' value obtained between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching is 1.878 and it shows there is no difference between urban and rural second year B.Ed. student-teachers in their application of emotive cognition strategies in teaching. Urban and rural student-teachers are identical and they have similar behaviour. The 'F' values obtained among undergraduate science, undergraduate arts, postgraduate science and postgraduate arts educational qualifications of second year B.Ed. student-teachers application of emotive cognition strategies in teaching is 1.435. It is concurred with the research findings of Fong-Luan Kang (2015) who found that the emotional intelligence of graduate students from degrees of Master of Education (M.Ed.), Master of Science (M.S.), Master of Human Resource Development (M.HRD) and Doctor of Philosophy (PhD) was not significantly different. The 'F' value obtained among Tamil, English and other Indian native languages of second year B.Ed. student-teachers application of emotive cognition strategies in teaching is 1.099. It is found that Tamil, English and other Indian native languages of second year B.Ed. student-teachers are identical in nature and they did not differ in their application of emotive cognition strategies in teaching.

CONCLUSION:

Emotive cognition is the interactions between the emotion and cognition. Application of emotive cognition in teaching facilitates the teacher to feel, act and modify his teaching methods according to the learning readiness of the learners. It creates meaningful teaching and learning environment. This pilot study found that there is no difference in application of emotive cognition in teaching among second year B.Ed. student-teachers with respect to gender, location, educational qualifications and native languages. It showed that all second year B.Ed. student-teachers are identical and they have moderate level behaviour in their application of emotive cognition strategies in teaching.

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